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# 8



OIIPE

## RAW SEQUENCE LISTING

DATE: 11/19/2002

PATENT APPLICATION: US/10/084,839

TIME: 20:11:01

Input Set : N:\AMC\06666.ST25.txt

Output Set: N:\CRF4\11192002\J084839.raw

3 <110> APPLICANT: Third Wave Technologies  
 4 Allawi, Hatim  
 5 Argue, Brad T.  
 6 Bartholomay, Christian T.  
 7 Chehak, LuAnne  
 8 Curtis, Michelle L.  
 9 Eis, Peggy S.  
 10 Hall, Jeff G.  
 11 Ip, Hon S.  
 12 Ji, Lin  
 13 Kaiser, Michael  
 14 Kwiatkowski, Jr., Robert W.  
 15 Lukowiak, Andrew A.  
 16 Lyamichev, Victor  
 17 Lymaicheva, Natalie E.  
 18 Ma, WuPo  
 19 Neri, Bruce P.  
 20 Olson, Sarah M.  
 21 Olson-Munoz, Marilyn C.  
 22 Schaefer, James J.  
 23 Skrzypczynski, Zbigniew  
 24 Takova, Tsetska Y.  
 25 Thompson, Lisa C.  
 26 Vedvik, Kevin L.  
 28 <120> TITLE OF INVENTION: RNA Detection Assays  
 30 <130> FILE REFERENCE: FORS-06666  
 32 <140> CURRENT APPLICATION NUMBER: 10/084,839  
 33 <141> CURRENT FILING DATE: 2002-02-26  
 35 <160> NUMBER OF SEQ ID NOS: 4004  
 37 <170> SOFTWARE: PatentIn version 3.1  
 39 <210> SEQ ID NO: 1  
 40 <211> LENGTH: 834  
 41 <212> TYPE: PRT  
 42 <213> ORGANISM: Thermus aquaticus  
 44 <400> SEQUENCE: 1  
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 51 20 25 30  
 54 Leu Thr Thr Ser Arg Gly Glu Pro Val Gln Ala Val Tyr Gly Phe Ala  
 55 35 40 45  
 58 Lys Ser Leu Leu Lys Ala Leu Lys Glu Asp Gly Tyr Lys Ala Val Phe  
 59 50 55 60

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63 65              70              75              80
66 Ala Tyr Lys Ala Gly Arg Ala Pro Thr Pro Glu Asp Phe Pro Arg Gln
67              85              90              95
70 Leu Ala Leu Ile Lys Glu Leu Val Asp Leu Leu Gly Phe Thr Arg Leu
71              100             105             110
74 Glu Val Pro Gly Tyr Glu Ala Asp Asp Val Leu Ala Thr Leu Ala Lys
75              115             120             125
78 Lys Ala Glu Lys Glu Gly Tyr Glu Val Arg Ile Leu Thr Ala Asp Arg
79              130             135             140
82 Asp Leu Tyr Gln Leu Val Ser Asp Arg Val Ala Val Leu His Pro Glu
83 145             150             155             160
86 Gly His Leu Ile Thr Pro Glu Trp Leu Trp Glu Lys Tyr Gly Leu Arg
87              165             170             175
90 Pro Glu Gln Trp Val Asp Phe Arg Ala Leu Val Gly Asp Pro Ser Asp
91              180             185             190
94 Asn Leu Pro Gly Val Lys Gly Ile Gly Glu Lys Thr Ala Leu Lys Leu
95              195             200             205
98 Leu Lys Glu Trp Gly Ser Leu Glu Asn Leu Leu Lys Asn Leu Asp Arg
99              210             215             220
102 Val Lys Pro Glu Asn Val Arg Glu Lys Ile Lys Ala His Leu Glu Asp
103 225             230             235             240
106 Leu Arg Leu Ser Leu Glu Leu Ser Arg Val Arg Thr Asp Leu Pro Leu
107              245             250             255
110 Glu Val Asp Leu Ala Gln Gly Arg Glu Pro Asp Arg Glu Gly Leu Arg
111              260             265             270
114 Ala Phe Leu Glu Arg Leu Glu Phe Gly Ser Leu Leu His Glu Phe Gly
115              275             280             285
118 Leu Leu Glu Ala Pro Ala Pro Leu Glu Glu Ala Pro Trp Pro Pro Pro
119              290             295             300
122 Glu Gly Ala Phe Val Gly Phe Val Leu Ser Arg Pro Glu Pro Met Trp
123 305             310             315             320
126 Ala Glu Leu Lys Ala Leu Ala Ala Cys Arg Asp Gly Arg Val His Arg
127              325             330             335
130 Ala Ala Asp Pro Leu Ala Gly Leu Lys Asp Leu Lys Glu Val Arg Gly
131              340             345             350
134 Leu Leu Ala Lys Asp Leu Ala Val Leu Ala Ser Arg Glu Gly Leu Asp
135              355             360             365
138 Leu Val Pro Gly Asp Asp Pro Met Leu Leu Ala Tyr Leu Leu Asp Pro
139              370             375             380
142 Ser Asn Thr Thr Pro Glu Gly Val Ala Arg Arg Tyr Gly Gly Glu Trp
143 385             390             395             400
146 Thr Glu Asp Ala Ala His Arg Ala Leu Leu Ser Glu Arg Leu His Arg
147              405             410             415
150 Asn Leu Leu Lys Arg Leu Glu Gly Glu Glu Lys Leu Leu Trp Leu Tyr
151              420             425             430
154 His Glu Val Glu Lys Pro Leu Ser Arg Val Leu Ala His Met Glu Ala
155              435             440             445
158 Thr Gly Val Arg Leu Asp Val Ala Tyr Leu Gln Ala Leu Ser Leu Glu

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TIME: 20:11:01

Input Set : N:\AMC\06666.ST25.txt

Output Set: N:\CRF4\11192002\J084839.raw

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159      450      455      460
162 Leu Ala Glu Glu Ile Arg Arg Leu Glu Glu Glu Val Phe Arg Leu Ala
163 465      470      475      480
166 Gly His Pro Phe Asn Leu Asn Ser Arg Asp Gln Leu Glu Arg Val Leu
167      485      490      495
170 Phe Asp Glu Leu Arg Leu Pro Ala Leu Gly Lys Thr Gln Lys Thr Gly
171      500      505      510
174 Lys Arg Ser Thr Ser Ala Ala Val Leu Glu Ala Leu Arg Glu Ala His
175      515      520      525
178 Pro Ile Val Glu Lys Ile Leu Gln His Arg Glu Leu Thr Lys Leu Lys
179      530      535      540
182 Asn Thr Tyr Val Asp Pro Leu Pro Ser Leu Val His Pro Arg Thr Gly
183 545      550      555      560
186 Arg Leu His Thr Arg Phe Asn Gln Thr Ala Thr Ala Thr Gly Arg Leu
187      565      570      575
190 Ser Ser Ser Asp Pro Asn Leu Gln Asn Ile Pro Val Arg Thr Pro Leu
191      580      585      590
194 Gly Gln Arg Ile Arg Arg Ala Phe Val Ala Glu Ala Gly Trp Ala Leu
195      595      600      605
198 Val Ala Leu Asp Tyr Ser Gln Ile Glu Leu Arg Val Leu Ala His Leu
199      610      615      620
202 Ser Gly Asp Glu Asn Leu Ile Arg Val Phe Gln Glu Gly Lys Asp Ile
203 625      630      635      640
206 His Thr Gln Thr Ala Ser Trp Met Phe Gly Val Pro Pro Glu Ala Val
207      645      650      655
210 Asp Pro Leu Met Arg Arg Ala Ala Lys Thr Val Asn Phe Gly Val Leu
211      660      665      670
214 Tyr Gly Met Ser Ala His Arg Leu Ser Gln Glu Leu Ala Ile Pro Tyr
215      675      680      685
218 Glu Glu Ala Val Ala Phe Ile Glu Arg Tyr Phe Gln Ser Phe Pro Lys
219      690      695      700
222 Val Arg Ala Trp Ile Glu Lys Thr Leu Glu Glu Gly Arg Lys Arg Gly
223 705      710      715      720
226 Tyr Val Glu Thr Leu Phe Gly Arg Arg Arg Tyr Val Pro Asp Leu Asn
227      725      730      735
230 Ala Arg Val Lys Ser Val Arg Glu Ala Ala Glu Arg Met Ala Phe Asn
231      740      745      750
234 Met Pro Val Gln Gly Thr Ala Ala Asp Leu Met Lys Leu Ala Met Val
235      755      760      765
238 Lys Leu Phe Pro Arg Leu Arg Glu Met Gly Ala Arg Met Leu Leu Gln
239      770      775      780
242 Val His Asp Glu Leu Leu Glu Ala Pro Gln Ala Arg Ala Glu Glu
243 785      790      795      800
246 Val Ala Ala Leu Ala Lys Glu Ala Met Glu Lys Ala Tyr Pro Leu Ala
247      805      810      815
250 Val Pro Leu Glu Val Glu Val Gly Met Gly Glu Asp Trp Leu Ser Ala
251      820      825      830
254 Lys Gly
258 <210> SEQ ID NO: 2

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PATENT APPLICATION: US/10/084,839

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TIME: 20:11:01

Input Set : N:\AMC\06666.ST25.txt

Output Set: N:\CRF4\11192002\J084839.raw

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259 <211> LENGTH: 839
260 <212> TYPE: PRT
261 <213> ORGANISM: Artificial Sequence
263 <220> FEATURE:
264 <223> OTHER INFORMATION: Synthetic
266 <400> SEQUENCE: 2
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272 Leu Val Asp Gly His His Leu Ala Tyr Arg Thr Phe His Ala Leu Lys
273 20 25 30
276 Gly Leu Thr Thr Ser Arg Gly Glu Pro Val Gln Ala Val Tyr Gly Phe
277 35 40 45
280 Ala Lys Ser Leu Leu Lys Ala Leu Lys Glu Asp Gly Asp Ala Val Ile
281 50 55 60
284 Val Val Phe Asp Ala Lys Ala Pro Ser Phe Arg His Glu Ala Tyr Gly
285 65 70 75 80
288 Gly Tyr Lys Ala Gly Arg Ala Pro Thr Pro Glu Asp Phe Pro Arg Gln
289 85 90 95
292 Leu Ala Leu Ile Lys Glu Leu Val Asp Leu Leu Gly Leu Ala Arg Leu
293 100 105 110
296 Glu Val Pro Gly Tyr Glu Ala Asp Asp Val Leu Ala Ser Leu Ala Lys
297 115 120 125
300 Lys Ala Glu Lys Glu Gly Tyr Glu Val Arg Ile Leu Thr Ala Asp Lys
301 130 135 140
304 Asp Leu Tyr Gln Leu Leu Ser Asp Arg Ile His Val Leu His Pro Glu
305 145 150 155 160
308 Gly Tyr Leu Ile Thr Pro Ala Trp Leu Trp Glu Lys Tyr Gly Leu Arg
309 165 170 175
312 Pro Asp Gln Trp Ala Asp Tyr Arg Ala Leu Thr Gly Asp Glu Ser Asp
313 180 185 190
316 Asn Leu Pro Gly Val Lys Gly Ile Gly Glu Lys Thr Ala Arg Lys Leu
317 195 200 205
320 Leu Glu Glu Trp Gly Ser Leu Glu Ala Leu Leu Lys Asn Leu Asp Arg
321 210 215 220
324 Leu Lys Pro Ala Ile Arg Glu Lys Ile Leu Ala His Met Asp Asp Leu
325 225 230 235 240
328 Lys Leu Ser Trp Asp Leu Ala Lys Val Arg Thr Asp Leu Pro Leu Glu
329 245 250 255
332 Val Asp Phe Ala Lys Arg Arg Glu Pro Asp Arg Glu Arg Leu Arg Ala
333 260 265 270
336 Phe Leu Glu Arg Leu Glu Phe Gly Ser Leu Leu His Glu Phe Gly Leu
337 275 280 285
340 Leu Glu Ser Pro Lys Ala Leu Glu Glu Ala Pro Trp Pro Pro Pro Glu
341 290 295 300
344 Gly Ala Phe Val Gly Phe Val Leu Ser Arg Lys Glu Pro Met Trp Ala
345 305 310 315 320
348 Asp Leu Leu Ala Leu Ala Ala Ala Arg Gly Gly Arg Val His Arg Ala
349 325 330 335
352 Ala Asp Pro Leu Ala Gly Leu Lys Asp Leu Lys Glu Val Arg Gly Leu

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/084,839

DATE: 11/19/2002

TIME: 20:11:01

Input Set : N:\AMC\06666.ST25.txt

Output Set: N:\CRF4\11192002\J084839.raw

353		340		345		350										
356	Leu	Ala	Lys	Asp	Leu	Ala	Val	Leu	Ala	Ser	Arg	Glu	Gly	Leu	Asp	Leu
357			355				360						365			
360	Val	Pro	Gly	Asp	Asp	Pro	Met	Leu	Leu	Ala	Tyr	Leu	Leu	Asp	Pro	Ser
361		370					375						380			
364	Asn	Thr	Thr	Pro	Glu	Gly	Val	Ala	Arg	Arg	Tyr	Gly	Gly	Glu	Trp	Thr
365	385					390					395					400
368	Glu	Asp	Ala	Ala	His	Arg	Ala	Leu	Leu	Ser	Glu	Arg	Leu	His	Arg	Asn
369					405					410						415
372	Leu	Leu	Lys	Arg	Leu	Glu	Gly	Glu	Glu	Lys	Leu	Leu	Trp	Leu	Tyr	His
373				420					425						430	
376	Glu	Val	Glu	Lys	Pro	Leu	Ser	Arg	Val	Leu	Ala	His	Met	Glu	Ala	Thr
377			435					440					445			
380	Gly	Val	Arg	Arg	Asp	Val	Ala	Tyr	Leu	Gln	Ala	Leu	Ser	Leu	Glu	Leu
381		450					455					460				
384	Ala	Glu	Glu	Ile	Arg	Arg	Leu	Glu	Glu	Glu	Val	Phe	Arg	Leu	Ala	Gly
385	465					470					475					480
388	His	Pro	Phe	Asn	Leu	Asn	Ser	Arg	Asp	Gln	Leu	Glu	Arg	Val	Leu	Phe
389				485					490							495
392	Asp	Glu	Leu	Arg	Leu	Pro	Ala	Leu	Gly	Lys	Thr	Gln	Lys	Thr	Gly	Lys
393				500					505						510	
396	Arg	Ser	Thr	Ser	Ala	Ala	Val	Leu	Glu	Ala	Leu	Arg	Glu	Ala	His	Pro
397			515					520					525			
400	Ile	Val	Glu	Lys	Ile	Leu	Gln	His	Arg	Glu	Leu	Thr	Lys	Leu	Lys	Asn
401		530					535						540			
404	Thr	Tyr	Val	Asp	Pro	Leu	Pro	Ser	Leu	Val	His	Pro	Arg	Thr	Gly	Arg
405	545					550					555					560
408	Leu	His	Thr	Arg	Phe	Asn	Gln	Thr	Ala	Thr	Ala	Thr	Gly	Arg	Leu	Ser
409				565					570							575
412	Ser	Ser	Asp	Pro	Asn	Leu	Gln	Asn	Ile	Pro	Val	Arg	Thr	Pro	Leu	Gly
413				580					585					590		
416	Gln	Arg	Ile	Arg	Arg	Ala	Phe	Val	Ala	Glu	Ala	Gly	Trp	Ala	Leu	Val
417			595					600					605			
420	Ala	Leu	Asp	Tyr	Ser	Gln	Ile	Glu	Leu	Arg	Val	Leu	Ala	His	Leu	Ser
421		610					615						620			
424	Gly	Asp	Glu	Asn	Leu	Ile	Arg	Val	Phe	Gln	Glu	Gly	Lys	Asp	Ile	His
425	625					630					635					640
428	Thr	Gln	Thr	Ala	Ser	Trp	Met	Phe	Gly	Val	Pro	Pro	Glu	Ala	Val	Asp
429				645					650							655
432	Pro	Leu	Met	Arg	Arg	Ala	Ala	Lys	Thr	Val	Asn	Phe	Gly	Val	Leu	Tyr
433				660					665							670
436	Gly	Met	Ser	Ala	His	Arg	Leu	Ser	Gln	Glu	Leu	Ala	Ile	Pro	Tyr	Glu
437			675					680								685
440	Glu	Ala	Val	Ala	Phe	Ile	Glu	Arg	Tyr	Phe	Gln	Ser	Phe	Pro	Lys	Val
441		690					695						700			
444	Arg	Ala	Trp	Ile	Glu	Lys	Thr	Leu	Glu	Glu	Gly	Arg	Lys	Arg	Gly	Tyr
445	705					710					715					720
448	Val	Glu	Thr	Leu	Phe	Gly	Arg	Arg	Arg	Tyr	Val	Pro	Asp	Leu	Asn	Ala
449				725					730							735

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/084,839

DATE: 11/19/2002  
TIME: 20:11:02

Input Set : N:\AMC\06666.ST25.txt  
Output Set: N:\CRF4\11192002\J084839.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:156; N Pos. 1380,1497,1530,1569,1572,1641,1653,1655,1770,1812,2319  
Seq#:156; N Pos. 2346,2396  
Seq#:159; Xaa Pos. 2,63,109,186,205,209,227,228,233,240,243,244,247,260,290  
Seq#:159; Xaa Pos. 329,336,340,368,414,417,418,431,551,605,773,794,798,823  
Seq#:159; Xaa Pos. 833  
Seq#:162; N Pos. 1,35  
Seq#:166; N Pos. 1  
Seq#:167; N Pos. 1  
Seq#:172; N Pos. 4  
Seq#:189; N Pos. 4  
Seq#:223; N Pos. 1,6  
Seq#:230; N Pos. 30  
Seq#:231; N Pos. 1  
Seq#:232; N Pos. 28  
Seq#:233; N Pos. 1  
Seq#:234; N Pos. 1  
Seq#:413; N Pos. 19,20,21  
Seq#:421; N Pos. 16,17,18  
Seq#:425; N Pos. 19,20,21  
Seq#:3998; N Pos. 4  
Seq#:3999; N Pos. 4